## Approved Sampling and Analysis Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies

## 23 May 2008

Monitoring and Reporting Program (MRP) No. R5-2007-0035 (MRP) requires existing milk cow dairies to conduct nutrient and groundwater monitoring. The MRP does not identify complete sampling procedures to be followed for this monitoring, but directs dischargers to follow procedures approved by the Board's Executive Officer. The sampling and analytical procedures listed below are approved. Dischargers may choose any of the listed procedures. Records must be kept on the procedure followed.

As noted in General Monitoring Requirements item 2 of the MRP, "When special procedures appear to be necessary at an individual dairy, the Discharger may request approval of alternative sampling procedures for nutrient management. The Executive Officer will review such requests and if adequate justification is provided, may approve the requested alternative sampling procedure." Parties requesting approval of alternative procedures must provide: (1) a full description of the procedure, (2) a description of situations where the procedure will be used, and why the proposal procedure is preferable to the listed procedure. (3) References used in developing the procedure, and (4) the name and contact information of the person to contact if there are any questions. All requests must be submitted in writing. The Discharger must receive written approval from the Executive Officer before using the procedure.

Approved sampling procedures:

# Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies

File name: sampling and analysis rev\_21feb08.pdf

Originally approved and posted Summer 2007

Revised 21 February 2008

- Electrical Conductivity
- Total Ammonia-Nitrogen and
- Un-ionized Ammonia Nitrogen
- Process Wastewater Sampling and Analysis
- Manure Sampling and Analysis
- Plant Tissue Sampling and Analysis
- Soil Sampling and Analysis
- Irrigation Water Sampling and Analysis

Groundwater Sampling and Analysis

### Sampling Supply Wells and Subsurface (Tile) Drainage Systems

File Name: sampling\_supplywells\_v8\_07.pdf

Compiled by Thomas Harter and Deanne Meyer, August 2007

University of California, Davis

CDQAP-WDR General Order Reference Binder TAB 5.1, Version 8-07

#### Solid Manure Sampling Protocol

File Name: sampling\_protocol\_solidmanure\_v29feb08.pdf

Deanne Meyer and Denise Mullinax

University of California, Davis and the California Dairy Quality Assurance

Program

CDQAP-WDR General Order Reference Binder TAB 5.2, Version 2-29-08

Process Wastewater (Liquid Manure) Sampling Protocol File name: sampling protocol liquidmanure v29feb08.pdf

Deanne Meyer

University of California, Davis

CDQAP-WDR General Order Reference Binder TAB 5.3, Version 2-29-08

#### Soil Sampling Protocol

File name: sampling\_protocol\_soils\_v29feb08.pdf

Stuart Pettygrove and Marsha Campbell Mathews

**UC Cooperative Extension Soils Specialist** 

UC Cooperative Extension Farm Advisor

CDQAP-WDR General Order Reference Binder TAB 5.4, Version 2-29-08

## Sampling Protocol for Plant Tissue

Corn and Winter Forage Silage

File name: sampling forage planttissue protocol v29feb08.pdf

Marsha Campbell Mathews & Carol Frate

UCCE Farm Advisors, Stanislaus and Tulare Counties

CDQAP-WDR General Order Reference Binder TAB 5.5, Version 2-29-08

#### Irrigation (Fresh) Water Sampling Protocol

File name: sampling protocol irrigationwater v29feb08.pdf

Carol Frate and Marsha Campbell Mathews

UCCE Farm Advisors, Tulare and Stanislaus Counties

CDQAP-WDR General Order Reference Binder TAB 5.6, Version 2-29-08